ECO PRODUCTS

SANUPS E

HYBRID UPS

E11A

SANYO DENKI

Hybrid UPS Saves Energy and Achieves High Reliability

SANUPS E11A

HYBRID UPS

100V model

Input	Output	Output capacity			
AC100,110,115,120V Single-phase	**AC100,110,115,120V** Single-phase	**1 kVA** (0.7 kW)	**1.5 kVA** (1.05 kW)	**2 kVA** (1.4 kW)	**3 kVA** (2.1 kW)

200V model

Input	Output	Output capacity		
AC200,208,220,230,240V Single-phase	**AC200,208,220,230,240V** Single-phase	**1 kVA** (0.7 kW)	**2 kVA** (1.4kW)	**3 kVA** (2.1kW)

UL (E226092), CE, FCC Part15 Subpart B Class A

The advancement of technology has increased the demand for quality power. In a perfect world, commercial power would always be stable and normal, however, we live in a world in which electricity from local utilities typically experiences anomalies such as spikes, surges, electrical noise, load fluctuations, and outages.

To protect your investments in technology equipment from these problems, informed users rely on SANYO DENKI SANUPS E11A products to resolve these power issues and provide continuous, clean power to connected equipment. Not only does the SANYO DENKI SANUPS E11A create continuous and clean power, it is an intelligent device in which power is consumed only when power conditions are unfavorable, making the unit highly efficient.

The SANYO DENKI SANUPS E11A Hybrid UPS provides highly efficient power protection to everything from heavy machinery and manufacturing devices to complex server systems and sensitive communication equipment (Voice and Data). With over 40 years of UPS experience, SANYO DENKI ensures the superior quality of the SANUPS E11A Hybrid UPS and provides the product equipped with extra long life batteries. The SANUPS E11A Hybrid UPS - a product truly in a class of its own.

1 Hybrid UPS-Energy conservation

2 Self battery check feature

3 UPS Management options

Mounted in a 19-inch rack

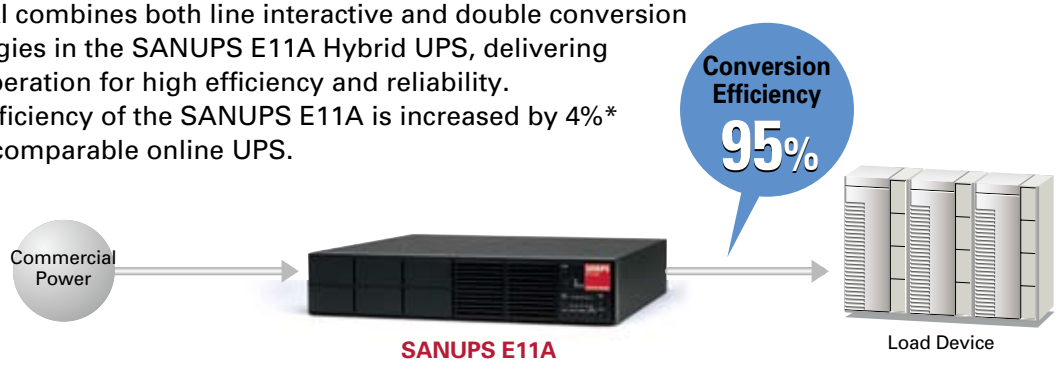
- Includes metal brackets for 19 inch rack installation.
- Rack support rail is optional.

Vertical Installation

- Includes vertical stand for upright support.

1 Hybrid UPS-Energy conservation

SANYO DENKI combines both line interactive and double conversion UPS technologies in the SANUPS E11A Hybrid UPS, delivering 3 modes of operation for high efficiency and reliability. Conversion efficiency of the SANUPS E11A is increased by 4%* compared to comparable online UPS.

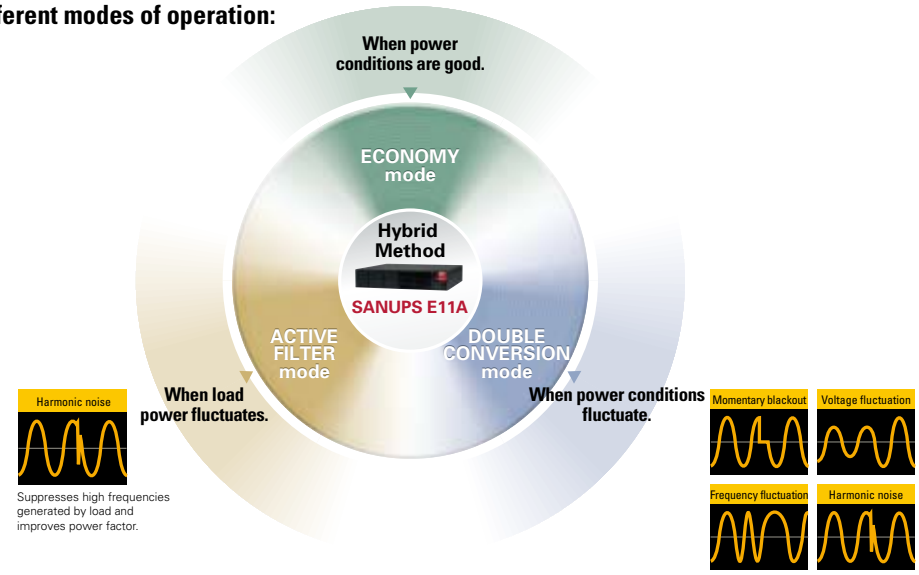


* It is a result of comparing the performances with existing 1kVA UPS of our company.

The Hybrid type SANUPS E11A automatically selects the most efficient mode of operation for any given power condition.

Operating mode can be manually chosen and locked by the end user.

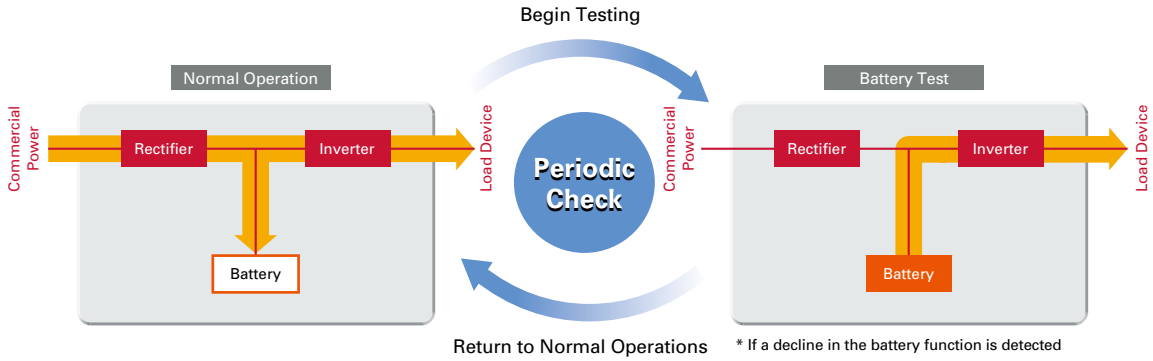
Three different modes of operation:



2 Self battery check feature

The SANUPS E11A automatically performs regular battery tests for operation during a power outage, and maintains peak battery conditions for reliable operation during an actual power outage.

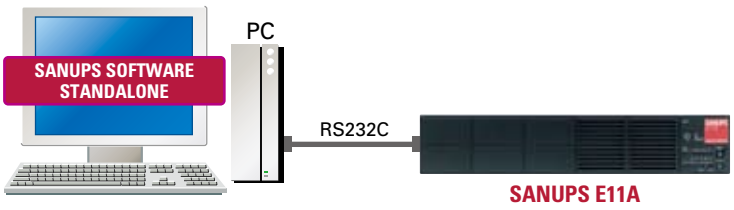
* The frequency of the battery test is open to configuration. (Test frequency choices are 1, 3 and 6 months; the factory setting is 6 months.)
* Sudden stoppage does not occur during battery operation test, no matter what the power supply mode.
* A LAN interface card (optional) is necessary to transmit the battery test results to the user's PC.

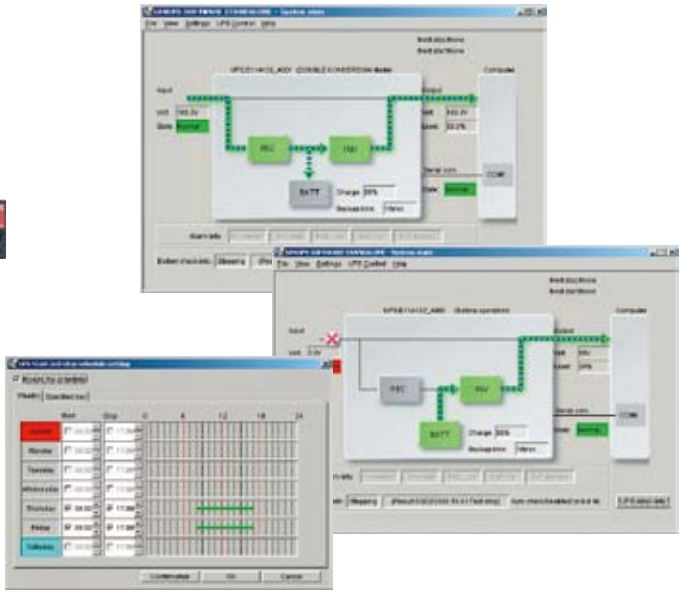


* If a decline in the battery function is detected during test mode, normal operation will resume.

3 UPS Management options

To increase user control over equipment protection, our stand-alone windows compatible UPS Management Software “SANUPS SOFTWARE STANDALONE” is provided as a standard accessory. Use it to improve the utility of the UPS, through useful functions such as monitoring UPS performance over a network connection and configuring shutdown settings.



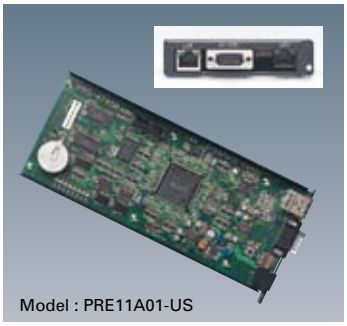


OS
for **Windows**

Options

LAN Interface Card

A LAN Interface Card (100Base-TX) can be inserted in the optional card slot on the rear panel of the SANUPS E11A. This allows for continuous monitoring and reporting of power conditions, and quick response during power failures. Power problems can also be reported to the System Manager via e-mail when this Card is installed.


Model : PRE11A01-US

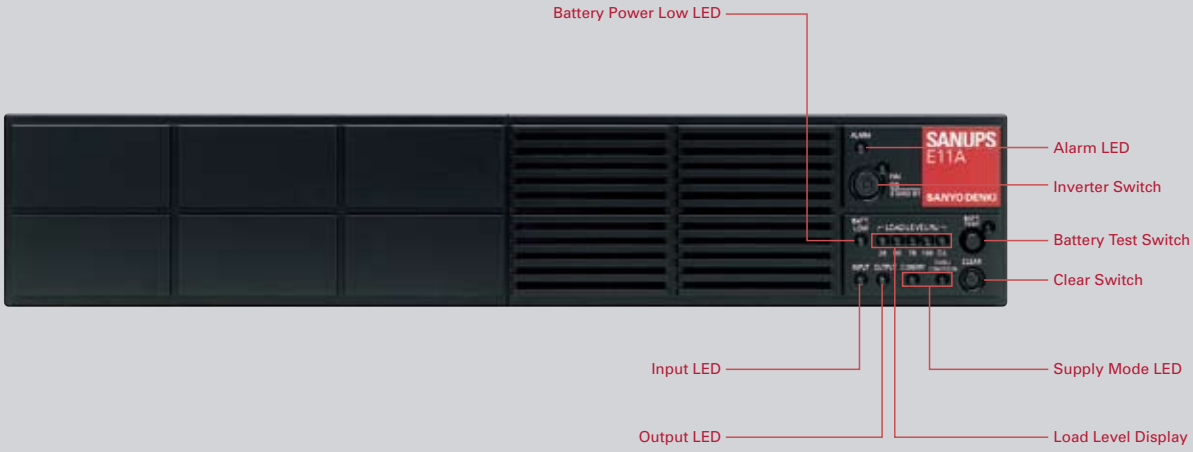
SANUPS SOFTWARE

The SANUPS SOFTWARE UPS Power Management Software increases the reliability and manageability of the entire system, including the network and the server. It provides UPS information to the System Manager, and flexible settings for handling power-related problems.

OS	Model	
for **Windows,UNIX,Linux**	**for Windows**	PMS40C00E (without cable)
	for Multiple OS	PMS41C00E (without cable)

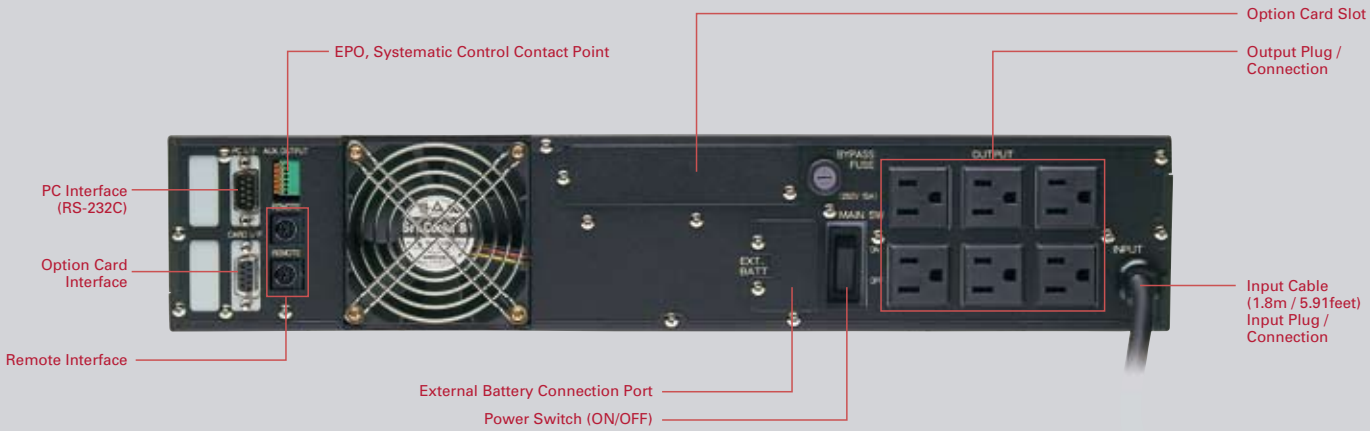
Note: Corresponds to all left OS.

Front



Back

The photograph shows the 100 V model 1kVA E11A102A011.


Option Card Slot
EPO, Systematic Control Contact Point
Output Plug / Connection
PC Interface (RS-232C)
Option Card Interface
Remote Interface
Input Cable (1.8m / 5.91feet) Input Plug / Connection
External Battery Connection Port
Power Switch (ON/OFF)

Interface & INPUT/OUTPUT Connection Chart

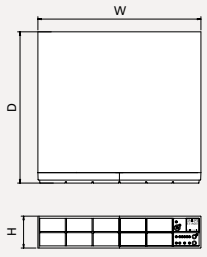
	Output (kVA)	UL/CE	Model	PC (RS-232C)	Remote	EPO	Systematic Control Contact Point	LAN Interface card (Option) Model: PRE11A01-US	Contact signal interface card (Option) PRE11A02-US	INPUT Plug/Connection	OUTPUT Plug/Connection
100V model (100 to 120V)	1	○	E11A102A001	○	—	—	—	○	—	NEMA 5-15P	NEMA 5-15R×6
		○	E11A102A011	○	○	○	○	○	○		
	1.5	○	E11A152A001USJ	○	—	—	—	○	—	NEMA 5-20P	NEMA 5-20R×4
		○	E11A152A011USJ	○	○	○	○	○	○		
	2	○	E11A202A001USJ	○	—	—	—	○	—	NEMA L5-30P	NEMA L5-30R×1
		○	E11A202A011USJ	○	○	○	○	○	○		
	3	○	E11A302A001USJ	○	—	—	—	○	—		
		○	E11A302A011USJ	○	○	○	○	○	○		
200V model (200 to 240V)	1	○	E11A102A002USJ	○	—	—	—	○	—	IEC60320-C14 to NEMA L6-20P line cord option included.	IEC60320-C13×4
		○	E11A102A012USJ	○	○	○	○	○	○		
	2	○	E11A202A002USJ	○	—	—	—	○	—	IEC60320-C20 to NEMA L6-20P line cord option included.	IEC60320-C19×3
		○	E11A202A012USJ	○	○	○	○	○	○		
	3	○	E11A302A002USJ	○	—	—	—	○	—		
		○	E11A302A012USJ	○	○	○	○	○	○		

Specifications

Item			E11A			Remarks
			Economy mode*	Active filter mode*	Double Conversion mode	
Output power			1kVA(0.7kW)/ 1.5kVA(1.05kW)/ 2kVA(1.4kW)/ 3kVA(2.1kW)**			
System	Topology		Hybrid			
	Cooling		Forced Air			
AC Input	Number of phase / wire		Single-phase / 2 wire			
	Nominal voltage	100V model (1kVA/1.5kVA/2kVA/3kVA)	AC100,110,115,120V			User selectable
		200V model (1kVA/2kVA/3kVA)	AC200,208,220,230,240V			
	Voltage range		±8% Max.	±5% Max.	+15%,-20% Max.	
	Frequency		50/60Hz Auto-sensing			
	Frequency range		±1,3,5% Max.		±8%Max.	User selectable
	Power factor		0.7(lag)	0.85Min.	0.95Min.	<1% Input voltage distortion
AC Output	Number of phase / wire		Single-phase / 2 wire			
	Power factor		0.7(lag)			Fluctuation tolerance: 0.7(lag) to 1.0
	Nominal voltage	100V model (1kVA/1.5kVA/2kVA/3kVA)	AC100,110,115,120V			Multiple output User selectable
		200V model (1kVA/2kVA/3kVA)	AC200,208,220,230,240V			
	Voltage regulation		±8%Max.	±5%Max.	±2%Max.	Depending on the input and load variance range
	Frequency		50/60Hz Auto-sensing			Same as input frequency
	Frequency range	On Normal Operation	±1,3,5% Max.		±1% Max.	User selectable
		On Battery Operation	-		±0.5% Max.	
	Voltage distortion	Linear load	-		3%Max.	During rated operations
		Non-linear load	-		7%Max.	During rated operations / 100% rectifier load
	Transient voltage regulation	Input Voltage step	±5%Max.			Power failure: feedback or supply fluctuation
		100% step load	-	-	±5%Max.	0% : at the time of 100% sudden fluctuation
	Overcurrent capacity		Greater than 200% (30 second interval)		105%(200ms)	Rated load power factor / at rated input
			Greater than 800% (2 cycle)		-	
Overcurrent protection			Fuse Protection (1kVA), Breaker Protection (1.5, 2, 3kVA)		Bypass Non-Hit Change (Auto Return)	Auto-return can be disabled
Battery	Type		Maintenance Free Sealed Lead-Acid Battery (small)			
	Backup time		5minutes (3kVA 100Vmodel: 3.5minutes)			Ambient Temp. of 25℃, under rated load
Acoustic noise			1kVA/1.5kVA: 40dB MAX., 2kVA/3kVA: 45dB MAX.			At 1m (40in) from the front of unit , At Economy mode
Nominal heat dissipation			Double conversion mode 100Vmodel 1kVA: 125W, 1.5kVA: 200W, 2kVA: 250W, 3kVA: 410W 200Vmodel 1kVA: 125W, 2kVA: 270W, 3kVA: 450W			
Environment	Operating temperature		0 to 40℃ (32 to 104˚F)			
	Relative humidity		20 to 90%			Non-condensing
Standard of safety			UL(E226092), CE, FCC Part15 Subpart B Class A			

*A momentary power interruption lasting less than 3 ms occurs when switching from Economy Mode or Active Filter Mode to battery power.
The unit can also be fixed to the Double Conversion Mode for applications that require zero transfer time from utility power to battery power.
Please contact your local sales representative for additional input and ouput voltage options.
** When using only 3 kVA for the 100 V model as a UL certified product, the load must be reduced depending on the set voltage.
When set to 120 V = 3 kVA (2.1 kW), when set to 115 V = 2.87 kVA (2.013 kW), when set to 110 V = 2.75 kVA (1.925 kW), when set to 100 V = 2.5 kVA (1.75 kW)

External dimensions



PaintColor: Black
(Munsell N1.5)

Output power (kVA)	Dimensions			Mass (Weight)	Remarks
	Width (W)	Depth (D)	Height (H)		
1kVA	440mm (17.32in)	408mm (16.06in)	86mm (3.39in)	17kg (37.5lbs)	100V/200V
1.5kVA		500mm (19.69in)		22kg (48.5lbs)	100V
2kVA		565mm (22.24in)		29kg (63.9lbs)	100V/200V
3kVA (100V)		660mm (25.98in)		37kg (81.6lbs)	100V
3kVA (200V)		750mm (29.53in)		39kg (86.0lbs)	200V

Run-time chart

Item		E11A102A□□□	E11A152A□□□	E11A202A□□□	E11A302A□□1	E11A302A□□2
Maximum Output (VA)		1000	1500	2000	3000	3000
Maximum Output (W)		700	1050	1400	2100	2100
VA	W	Run-time (Min)				
100	70	87	134	150	230	240
200	140	48	71	87	120	150
300	210	30	48	61	75	87
400	280	20	34	48	55	71
500	350	15	24	37	49	69
600	420	12	20	30	39	48
700	490	9	17	25	32	40
800	560	7	14	20	26	34
900	630	6	12	18	23	31
1000	700	5	10	15	20	28
1200	840		7	12	16	20
1400	980		6	9	13	17
1500	1050		5	8	11	16
1600	1120			7	10	14
1800	1260			6	9	12
2000	1400			5	8	10
2200	1540				7	9
2400	1680				6	8
2600	1820				5	7
2800	1960				4	6
3000	2100				3.5	5

The above run-time value assumes a load power factor = 0.7.

Figures should be used for reference only. Actual backup times depend on charging conditions, ambient temperature, years in use, etc.

Option

Item	Model	
Rack support rail	**RM030**	Used for mounting the UPS onto a 19 inch rack. Supports depth of 555mm-913mm.
Remote switch	**RSW006R**	Used for remotely turning on or off outlets 1,2 of the UPS.
Contact signal interface card	**PRE11A02**	Transmits contact signals containing information on the operation status of the UPS. Use to interface with UPS surveilance systems or customer equipment.
Cable for coupled operations	**P10197** (1m), **P10198** (3m)	Signal cable used to connect UPS units in order to control turning multiple units of UPS on and off.
Outlet box	**P10037** (100V 1kVA, 1.5kVA) **P10040** (100V 2kVA) **P10030** (100V 3kVA)	Equipment used to divide UPS output into three systems with the UPS system control contact signal and control turning on or off.

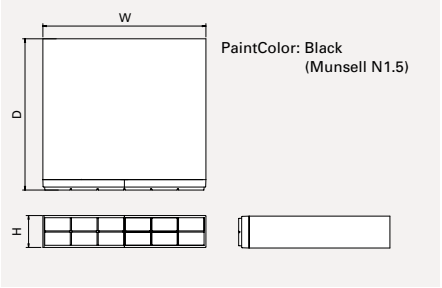
■External battery

Specifications

Model*	Dimensions (mm)				Weight	Run-time (Min)					
		Width	Depth	Height		15	20	30	40	45	60
BCE11A102A01US	for 1kVA 100V or 200V model	440	408	86	20	—	1unit	—	2unit	—	3unit
BCE11A102A02US			508		29	—	—	1unit	—	—	2unit
BCE11A152A01US	for 1.5kVA 100V model		500		26	—	1unit	—	2unit	—	3unit
BCE11A152A02US			600		38	—	—	1unit	—	—	2unit
BCE11A202A01US	for 2kVA 100V or 200V model		565		34	—	1unit	—	2unit	—	3unit
BCE11A202A02US			630		47	—	—	1unit	—	—	2unit
BCE11A302A03US	for 3kVA 100V model only		660		50	1unit	—	2unit	—	3unit	—
BCE11A302A01US	for 3kVA 200V model only		750		52	—	1unit	—	2unit	—	3unit

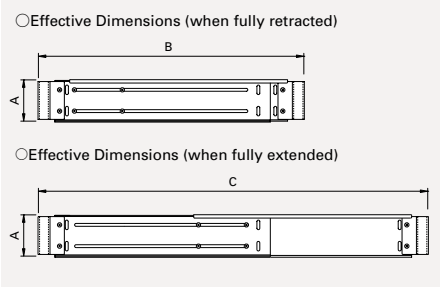
* If the end of the model number is US: Product certified with UL Specifications.

External dimensions



■Support rail

External dimensions



A	B	C
86.6mm	555mm	913mm

When expanded battery modules (model number ends with 01 or 03) are placed in rack mounting, the internal battery packs only can be exchanged from the front without removing the unit.

If the model number ends with 02, the module must be completely removed from the rack.

■ ECO PRODUCTS

ECO PRODUCTS

ECO PRODUCTS are designed with the goal of lessening environmental impact, from product development to disposal.

Notes when investigating use of this product in your applications

●Before starting installation, assembling and use, read the "Operation Manual" carefully and use the product correctly in your applications.
●When you are going to use this product in the following application, the special considerations are required for operation, running, maintenance and control. Be sure to consult with our company as a part of your investigations.
(a) Medical equipment and other equipment that are related directly to human life.
(b) Train or elevator that can give injury to human body.
(c) Socially and publicly important computer systems
(d) And other equipment that are related to safety of human life and that can affect severe effects on maintenance of public functions.
●For the applications that undergo vibration such as vehicles, ships and transportation facilities, please consult with our company.
●Never modify this product or give additional processing to this product.
●For the installation and maintenance work, please consult with our company or with specialized company.

※For any inquiry or consultation, please contact our sales representative.

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